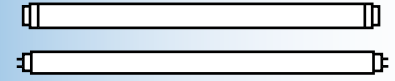


Ballast Selector Guide



No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Line Current (Amps)	Input Power (Watts)	Ballast Factor	Also Operates					
									F32T8ES	F28T8	F25T8	F17T8	F40T8	
F32T8 & F32T8/U														
1	F32T8 & F32T8/U	120 - 277	B132IUNVHP-N	HP Electronic	IS	0.26 - 0.12	30	0.88	X	X	X	X	X	
			B132IUNVEL-A	ULTim8	IS	0.25 - 0.11	25	0.77	X	X	X	X	X	
			B132IUNVHE-A	ULTim8	IS	0.24 - 0.12	28	0.87	X	X	X	X	X	
		347	B132PUNVHP-A	Accustart T8	PRS	0.26 - 0.11	31 - 30	0.88	X	X	X	X		
			B132I347HP	HP Electronic	IS	0.09	31	0.88			X	X		
			ES1510A	Std Electronic	PRS	0.09	31	0.87			X	X		
2	F32T8 & F32T8/U	120	B232I120RES-A	HomeStar	IS	0.80	56	0.88			X	X		
			B232I120RES-G	HomeStar	IS	0.80	56	0.88			X	X		
		120 - 277	B232IUNV-C	Std Electronic	IS	0.48 - 0.20	58 - 56	0.88			X	X	X	
			B232IUNVHP-N	HP Electronic	IS	0.47 - 0.19	56 - 55	0.88	X	X	X	X	X	
			B232IUNVEL-A	ULTim8	IS	0.40 - 0.17	48	0.77	X	X	X	X		
			B232IUNVHE-A	ULTim8	IS	0.45 - 0.20	55 - 54	0.87	X	X	X	X		
			B232IUNV104-A	Std Electronic	IS	0.54 - 0.24	65 - 64	1.04	X	X	X	X		
			B232IUNVHEH-A	ULTim8	IS	0.62 - 0.26	74 - 73	1.18	X	X	X	X		
			B232PUNVEL-B	ULTim8	PRS	0.38 - 0.16	46 - 44	0.71	X	X	X	X	X	
			B232PUNVHE-B	ULTim8	PRS	0.47 - 0.20	56 - 55	0.88	X	X	X	X	X	
		347	B232PUNVHEH-A	ULTim8	PRS	0.65 - 0.28	77 - 76	1.17	X	X	X	X		
			B232I347HPL	HP Electronic	IS	0.14	50	0.78			X	X	X	
			B232I347HP-A	HP Electronic	IS	0.17	58	0.88	X	X		X	X	
			ES1329A	Std Electronic	PRS	0.17	59	0.87			X	X		
3	F32T8 & F32T8/U	120 - 277	B332IUNVHP-A	HP Electronic	IS	0.71 - 0.31	85 - 83	0.88	X	X	X	X	X	
			B332IUNVEL-A	ULTim8	IS	0.61 - 0.26	74 - 73	0.77	X	X	X	X	X	
			B332IUNVHE-A	ULTim8	IS	0.70 - 0.30	83 - 81	0.87	X	X	X	X	X	
			B332IUNVHEH-A	ULTim8	IS	0.91 - 0.39	111 - 108	1.18	X	X	X	X	X	
			B332PUNVEL-A	ULTim8	PRS	0.58 - 0.25	70 - 69	0.71	X	X	X	X	X	
			B332PUNVHE-A	ULTim8	PRS	0.77 - 0.34	92 - 90	0.88	X	X	X	X	X	
			B332PUNVHEH-A	ULTim8	PRS	0.94 - 0.40	113 - 110	1.17	X	X	X	X		
		347	B332I347HPL	HP Electronic	IS	0.21	75	0.79			X	X	X	
			B332I347HP	HP Electronic	IS	0.25	88	1.00			X	X		
		4	F32T8 & F32T8/U	120 - 277	B332IHRVHB-E	ULTim8	IS	0.32 - 0.24	110 - 109	1.18	X	X		
B432I277HEH	ULTim8				IS	0.53	145	1.18	X	X	X	X		
B432IUNVHP-A	HP Electronic				IS	0.93 - 0.40	112 - 108	0.88	X	X	X	X	X	
B432IUNVEL-A	ULTim8				IS	0.80 - 0.34	97 - 96	0.77	X	X	X	X	X	
B432IUNVHE-A	ULTim8				IS	0.91 - 0.38	109 - 106	0.87	X	X	X	X	X	
B432PUNVEL-A	ULTim8				PRS	0.76 - 0.33	91 - 90	0.71	X	X	X	X	X	
347	B432PUNVHE-A			ULTim8	PRS	1.00 - 0.42	119 - 115	0.88	X	X	X	X	X	
	B432PUNVHEH-E			ULTim8	PRS	1.20 - 0.50	143 - 141	1.15	X	X	X	X		
	B432I347HPL			HP Electronic	IS	0.29	101	0.78			X	X	X	
	B432I347HP			HP Electronic	IS	0.33	114	0.88	X	X	X	X		

ULTim8 Instant Start are some of the most efficient ballasts in the industry for maximum energy savings.

- Available in high efficiency HE normal (.88), EL low (.77), and HEH high (1.18) ballast factor versions.
- Instant start technology for continuous operation: maximizes energy savings for long cycle operation.
- “True” parallel lamp operation: independent lamp operation simplifies troubleshooting, if one lamp fails, the others stay lit.
- Ballasts are CEE and NEMA Premium listed and may qualify for utility rebates.
- Backed by 5 year warranty when operated at 75°C maximum case temperature

ULTim8 Programmed Start ballasts enjoy the same benefits as Instant Start plus:

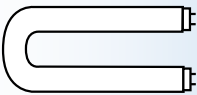
- Available in high efficiency HE normal (.88), EL low (.71), and HEH high (1.18) ballast factor versions.
- Programmed Start models feature “soft start” technology to provide long lamp life in high cycle applications such as motion sensors.
- Programmed Start ballasts are designed to quickly pre-heat lamp cathodes to their optimum starting temperature and ignite quickly (<700ms).
- Same 5 year warranty as instant plus 3 year warranty for HEH models when operated at 90C case temperature.



T8

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Line Current (Amps)	Input Power (Watts)	Ballast Factor	Also Operates		
									F96T8ES	F72T8	F48T8
Long T8											
1	F72T8	120	B244I120HE	High Efficiency	IS	0.42	50	1.03		X	X
		277	B244I277HE-A	High Efficiency	IS	0.19	52	1.04		X	X
	F96T8	120 - 277	B259IUNVHP-A	HP Electronic	IS	0.60 - 0.26	72 - 71	1.08			
			B259IUNVEL-A	ULTim8	IS	0.54 - 0.24	64	0.99	X		
		347	B259I347HP	HP Electronic	IS	0.20	68	1.05			
2	F72T8	120	B244I120HE	High Efficiency	IS	0.70	82	0.88		X	X
		277	B244I277HE-A	High Efficiency	IS	0.30	82	0.87		X	X
	F96T8	120 - 277	B259IUNVHP-A	HP Electronic	IS	0.95 - 0.40	113 - 110	0.88			
			B259IUNVEL-A	ULTim8	IS	0.84 - 0.36	101 - 99	0.78	X		
			B259IUNVHE-A	ULTim8	IS	0.93 - 0.39	111 - 108	0.88	X		
		347	B259I347HP	HP Electronic	IS	0.33	113	0.89			

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Line Current (Amps)	Input Power (Watts)	Ballast Factor	Also Operates		
									F48T8HO	F60T8HO	F72T8HO
T8HO											
1	F96T8HO	120	B286I120RH	Std Electronic	IS	0.79	92	0.96	X	X	X
		277	B286I277RH	Std Electronic	IS	0.32	87	0.93	X	X	X
2	F96T8HO	120	B286I120RH	Std Electronic	IS	1.3	151	0.81	X	X	X
		277	B286I277RH	Std Electronic	IS	0.53	144	0.81	X	X	X



T12

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Standard Lamps			Energy Saving Lamps		
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	Line Current (Amps)	Input Power (Watts)	Ballast Factor
F40T12 & F40T12/U											
1	F40T12 & F40T12/U	277	B234SR277M-A	Basic-12	RS	0.17	42	0.94	0.15	35	0.94
2	F40T12 & F40T12/U	120	B234SR120M-A	Basic-12	RS	0.63	71	0.9	0.49	59	0.86
		277	B234SR277M-A	Basic-12	RS	0.26	70	0.87	0.23	60	0.87

T12: HO & VHO



No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Standard Lamps			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F72T12HO	F60T12HO
T12HO										
1	F48T12HO	120	481-LH-TC-P	Std Magnetic	RS	0.79	82	0.84	X	X
2	F48T12HO	120 - 277	B295SRUNVHP	HP Electronic	SER-RS	0.92 - 0.40	110 - 109	0.88	X	X
1	F96T12HO	120	481-LH-TC-P	Std Magnetic	RS	1.16	136	0.91	X	X
2	F96T12HO	120 - 277	B295SRUNVHP	HP Electronic	SER-RS	1.71 - 0.73	205 - 199	0.88	X	X

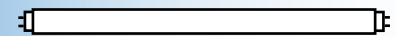
No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Standard Lamps		
						Line Current (Amps)	Input Power (Watts)	Ballast Factor
T12VHO								
2	F72T12VHO	120	931-LH-TC-P	Std Magnetic	RS	3.05	360	0.95
		277	937-K-TC-P	Std Magnetic	RS	1.26	341	0.91
2	F96T12VHO	120	931-LH-TC-P	Std Magnetic	RS	3.83	431	0.93
		277	937-K-TC-P	Std Magnetic	RS	1.64	450	0.95

T12: SLIMLINE



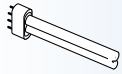
No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Standard Lamps			Energy Saving Lamps		
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	Line Current (Amps)	Input Power (Watts)	Ballast Factor
1	F48T12	120 - 277	B260IUNVHP	Basic-12	IS	.39 - .18	47	1.1	.32 - .15	38 - 39	1.1
2						.61 - .27	75 - 74	0.95	.57 - .25	67 - 66	0.93
1	F60T12	120 - 277	B260IUNVHP	Basic-12	IS	0.49 - 0.22	58	1.1	-	-	-
2						0.77 - 0.33	92 - 91	0.92	-	-	-
1	F72T12	120 - 277	B260IUNVHP	Basic-12	IS	0.55 - 0.25	68 - 67	1.06	-	-	-
2						0.09 - 0.39	109 - 107	0.91	-	-	-
1	F96T12	120 - 277	B260IUNVHP	Basic-12	IS	0.70 - 0.31	85 - 84	1.05	0.59 - 0.26	72 - 70	1.03
2		120	B260I120M-A			For use only with Energy Saving Lamps	0.93	107	0.88		
		120 - 277	B260IUNVHP			1.16 - 0.50	139 - 137	0.88	0.96 - 0.40	112 - 110	0.88

PREHEAT



No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates			
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F14T5	F21T5	F40T8	F32T8ES
1	F20T12	120	200-H2	Low PF Magnetic	Rapid	0.30	20	0.83	X	X	X	
			546-B-TC-P	Low PF Magnetic	Trigger	0.58	29	0.82	X	X	X	
2	F20T12	120	564-L-TC-P	Std Magnetic	Trigger	0.51	55	0.85	X	X	X	
1	F40T12ES	120	202-B-TC-P ♦	Low PF Magnetic	Preheat	0.68	37	0.82				

♦ Requires external starter



LONG TWIN T5

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Line Current (Amps)	Input Power (Watts)	Ballast Factor	Also Operates		
									F54T5HO	F24T5HO	F39T5HO
1	FT18W/2G11	120 - 277	CT218UNVME	CF Electronic	PRS	0.19 - 0.07	23	1.00			
2			CT218UNVME	CF Electronic	PRS	0.37 - 0.16	42	0.98			
1	FT24W/2G11	120 - 277	C2642UNVME	CF Electronic	PRS	0.22 - 0.10	26	1.01			
			B224PUNV-C	Accustart T5	PRS	0.23 - 0.10	27	1.02		X	X
		347	C2642/347ME	CF Electronic	PRS	0.09	29	0.90			
2	FT24W/2G11	120 - 277	C2642UNVME	CF Electronic	PRS	0.40 - 0.18	47 - 49	0.98			
			C242UNVME	CF Electronic	PRS	0.43 - 0.19	51 - 50	1.02			
		B224PUNV-C	Accustart T5	PRS	0.43 - 0.18	52 - 51	1.00		X		
		347	C242/347ME	CF Electronic	PRS	0.14	49	1.02			
1	FT36W/2G11	120 - 277	C242UNVME	CF Electronic	PRS	0.29 - 0.14	34 - 33	0.88			
			B224PUNV-C	Accustart T5	PRS	0.30 - 0.13	36	0.90		X	X
			B254PUNV-D	Accustart T5	PRS	0.37 - 0.18	45	1.22	X		
2	FT36W/2G11	120 - 277	C242UNVME	CF Electronic	PRS	0.57 - 0.25	64	0.83			
			B239PUNV-D	Accustart T5	PRS	0.59 - 0.26	71 - 70	0.94		X	X
		B254PUNV-D	Accustart T5	PRS	0.73 - 0.30	87	1.20	X			
		347	C242/347ME	CF Electronic	PRS	0.19	64	0.90			
1	FT40W/2G11	120	C240SI120RH	Std Electronic	IS	0.40	40	1.02			
		277	C240SI277RH	Std Electronic	IS	0.17	40	1.02			
		120 - 277	C242UNVME	CF Electronic	PRS	0.40 - 0.18	47	1.08			
			C240PUNVHP-B	HP Electronic	PRS	0.34 - 0.15	41 - 40	1.00			
2	FT40W/2G11	120	C240SI120RH	Std Electronic	IS	0.61	67	0.88			
		277	C240SI277RH	Std Electronic	IS	0.27	67	0.88			
		120 - 277	C242UNVME	CF Electronic	PRS	0.78 - 0.34	93 - 87	1.00			
			C240PUNVHP-B	HP Electronic	PRS	0.63 - 0.27	76 - 73	0.90			
3	FT40W/2G11	120	C340SI120RH	Std Electronic	IS	0.88	98	0.88			
		277	C340SI277RH	Std Electronic	IS	0.39	98	0.88			
1	FT50W/2G11	120 - 277	B254PUNV-D	Accustart T5	PRS	0.47 - 0.21	57	1.00	X		
		347	B254P347-D	Accustart T5	PRS	0.17	58	1.12	X		
		347 - 480	B254PHRVHB-E	Accustart T5	PRS	0.19 - 0.15	65	1.12	X		
2	FT50W/2G11	120 - 277	B254PUNV-D	Accustart T5	PRS	0.93 - 0.40	111 - 108	1.00	X		
		347	B254P347-D	Accustart T5	PRS	0.31	106	1.10	X		
		347 - 480	B254PHRVHB-E	Accustart T5	PRS	0.33 - 0.25	115 - 114	1.10	X		
3	FT50W/2G11	120 - 277	B454PUNV-E	Accustart T5	PRS	1.49 - 0.64	179 - 177	1.13	X		
4	FT50W/2G11	120 - 277	B454PUNV-E	Accustart T5	PRS	1.98 - 0.84	240 - 235	1.10	X		
			B454PUNVHB-E	Accustart T5	PRS	1.98 - 0.84	240 - 235	1.10	X		
1	FT55W/2G11	120 - 277	C242UNVME	CF Electronic	PRS	0.38 - 0.17	46	0.83			
			B254PUNV-D	Accustart T5	PRS	0.47 - 0.21	56	1.00	X		
		347	C242/347ME	CF Electronic	PRS	0.13	43	0.83			
		347 - 480	B254P347-D	Accustart T5	PRS	0.17	57	0.92	X		
			B254PHRVHB-E	Accustart T5	PRS	0.19 - 0.14	61	0.92	X		
2	FT55W/2G11	120 - 277	B254PUNV-D	Accustart T5	PRS	0.93 - 0.39	112 - 109	1.00	X		
		347	B254P347-D	Accustart T5	PRS	0.30	102	0.90	X		
		347 - 480	B254PHRVHB-E	Accustart T5	PRS	0.33 - 0.24	109 - 108	0.90	X		
3	FT55W/2G11	120 - 277	B454PUNV-E	Accustart T5	PRS	1.45 - 0.62	174 - 171	0.93	X		
4	FT55W/2G11	120 - 277	B454PUNV-E	Accustart T5	PRS	1.91 - 0.80	229 - 223	0.90	X		
			B454PUNVHB-E	Accustart T5	PRS	1.91 - 0.80	229 - 223	0.90	X		

T5: STD & HO



No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F14T5	F21T5
1	F14T5	120 - 277	B114PUNV70-D	Accustart T5	PRS	0.12 - 0.06	14	0.70	X	

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F14T5	F21T5
1	F28T5	120 - 277	B128PUNV50-D	Accustart T5	PRS	0.17 - 0.08	20	0.50		X
			B128PUNV60-D	Accustart T5	PRS	0.18 - 0.09	22 - 25	0.60		X
			B128PUNV70-D	Accustart T5	PRS	0.21 - 0.11	25 - 27	0.70		X
2	F28T5	120 - 277	B228PUNV85-D	Accustart T5	PRS	0.48 - 0.21	54 - 53	0.85	X	X
			B228PUNV90-C	Accustart T5	PRS	0.48 - 0.21	58 - 56	0.90	X	X
			B228PUNV95-D	Accustart T5	PRS	0.51 - 0.22	61 - 60	0.95	X	X
			B228PUNV-C	Accustart T5	PRS	0.55 - 0.23	63 - 61	1.00	X	X
			B228PUNV-N	Accustart T5	PRS	0.55 - 0.23	66 - 64	1.00	X	X
			B228PUNV115-D	Accustart T5	PRS	0.59 - 0.25	69 - 68	1.15	X	X
		347	B228P347PLA	ULTim5	PRS	0.19	64	1.03	X	X

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F14T5	F21T5
1	F35T5	120 - 277	B135PUNV70-D	Accustart T5	PRS	0.25 - .012	30	0.70		

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F39T5HO	FT36W/2G11
1	F24T5HO	120 - 277	B224PUNV-C	Accustart T5	PRS	0.19 - 0.10	28	1.02	X	X
2	F24T5HO	120 - 277	B224PUNV-C	Accustart T5	PRS	0.45 - 0.23	53 - 52	1.00	X	X

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	FT50W/2G11	FT55W/2G11
1	F39T5HO	120 - 277	B239PUNV-D	Accustart T5	PRS	0.32 - 0.18	47	1.02	X	X
2	F39T5HO	120 - 277	B239PUNV-D	Accustart T5	PRS	0.75 - 0.39	89 - 88	1.00	X	X

No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	F14T5	F21T5
1	F54T5HO	120 - 277	B254PUNV-D	Accustart T5	PRS	0.54 - 0.24	64	1.02	X	X
		347 - 480	B254PHRVHB-E	Accustart T5	PRS	0.19 - 0.15	66	1.02	X	X
2	F54T5HO	120 - 277	B254PUNV-D	Accustart T5	PRS	1.03 - 0.43	120 - 117	1.00	X	X
			B254PUNVHB-D	Accustart T5	PRS	0.96 - 0.41	116 - 113	1.00	X	X
		347	B254P347-D	Accustart T5	PRS	0.35	120	1.00	X	X
		347 - 480	B254PHRVHB-E	Accustart T5	PRS	0.35 - 0.26	120 - 119	1.00	X	X
3	F54T5HO	120 - 277	B454PUNV-E	Accustart T5	PRS	1.52 - 0.66	181 - 178	1.05	X	X
4	F54T5HO	120 - 277	B454PUNV-E	Accustart T5	PRS	2.01 - 0.86	240 - 234	1.00	X	X
			B454PUNVHB-E	Accustart T5	PRS	1.96 - 0.84	235 - 229	1.00	X	X



No. of Lamps	Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	Primary Lamp			Also Operates	
						Line Current (Amps)	Input Power (Watts)	Ballast Factor	CFS28W/GR10q	CFS38W/GR10q
1	FC8T9	120	547-RS-WS-TC-P	Low PF Magnetic	Rapid	0.60	30	0.85		
1	FC12T9	120	202-B-TC-P	Low PF Magnetic	Preheat	0.67	37	0.91		
1	FC9T5-22W	120 - 277	C2642UNVME	CF Electronic	PRS	0.21 - 0.10	25	1.00	X	X
		347	C2642/347ME	CF Electronic	PRS	0.08	26	0.98	X	
2	FC9T5-22W	120 - 277	C242UNVME	CF Electronic	PRS	0.42 - 0.19	50	1.05	X	
		347	C242/347ME	CF Electronic	PRS	0.14	47	1.05	X	
1	FC12T5-40W	120 - 277	C2642UNVME	CF Electronic	PRS	0.35 - 0.16	42	0.98	X	X
		347	C2642/347ME	CF Electronic	PRS	0.12	40	0.98	X	
2	FC12T5-40W	120 - 277	C242UNVME	CF Electronic	PRS	0.65 - 0.29	80 - 79	0.98	X	
		347	C242/347ME	CF Electronic	PRS	0.22	71	0.98	X	
1 & 1	FC9T5-22W & FC12T5-40W	120 - 277	C242UNVME	CF Electronic	PRS	0.54 - 0.24	66 - 64	0.98	X	
		347	C242/347ME	CF Electronic	PRS	0.18	59	0.98	X	
1	FC12T5-55W	120 - 277	B254PUNV-D	Accustart T5	PRS	0.45 - 0.20	55	1.00		
2	FC12T5-55W	120 - 277	B254PUNV-D	Accustart T5	PRS	0.88 - 0.38	107 - 104	1.00		



COMPACT

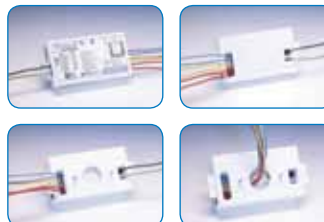
Lamp	Input Volts	Catalog Nbr	Ballast Family	Start Type	One Lamp			Two Lamp		
					Line Current (Amps)	Input Power (Watts)	Ballast Factor	Line Current (Amps)	Input Power (Watts)	Ballast Factor
13W/G24q or 13W/GX24q	120 - 277	C213UNVME	CF Electronic	PRS	0.15 - 0.07	18	1.00	0.26 - 0.11	30	1.00
	347	C213/347ME	CF Electronic	PRS	0.06	18	1.00	0.10	33	0.98
13W/2GX7	120 - 277	CT213UNVME	CF Electronic	PRS	0.12 - 0.06	15	0.98	0.22 - 0.10	26	0.98
18W/G24q or 18W/GX24q	120 - 277	C218UNVME	CF Electronic	PRS	0.16 - 0.07	19	1.00	0.30 - 0.13	35	0.95
	347	C218/347ME	CF Electronic	PRS	0.06	21	1.00	0.11	38	0.98
18W/2G11/RS	120 - 277	CT218UNVME	CF Electronic	PRS	0.19 - 0.07	23	1.00	0.37 - 0.16	43 - 42	0.98
26W/G24q or 26W/GX24q	120 - 277	C2642UNVME	CF Electronic	PRS	0.25 - 0.11	28	1.02	0.47 - 0.21	56	0.98
		C242UNVME	CF Electronic	PRS	-	-	-	0.46 - 0.20	56 - 55	1.02
	347	C2642/347ME	CF Electronic	PRS	0.09	31	1.02	0.17	57	0.98
		C242/347ME	CF Electronic	PRS	-	-	-	0.14	44	1.02
32W/GX24q	120 - 277	C2642UNVME	CF Electronic	PRS	0.30 - 0.13	36	1.00	-	-	-
		C242UNVME	CF Electronic	PRS	-	-	-	0.58 - 0.26	69 - 67	1.00
	347	C2642/347ME	CF Electronic	PRS	0.11	36	0.98	-	-	-
		C242/347ME	CF Electronic	PRS	-	-	-	0.19	62	1.00
42W/GX24q	120 - 277	C2642UNVME	CF Electronic	PRS	0.41 - 0.18	48	0.98	-	-	-
		C242UNVME	CF Electronic	PRS	0.40 - 0.18	45	1.00	0.76 - 0.32	91 - 90	0.98
	347	C2642/347ME	CF Electronic	PRS	0.15	50	1.00	-	-	-
		C242/347ME	CF Electronic	PRS	0.13	42	1.00	0.25	80	0.98
57W/GX24q	120 - 277	C242UNVME	CF Electronic	PRS	0.52 - 0.21	58 - 57	1.00	-	-	-
	347	C242/347ME	CF Electronic	PRS	0.18	61	1.00	-	-	-
70W/GX24q	120 - 277	C242UNVME	CF Electronic	PRS	0.61 - 0.27	73 - 72	1.00	-	-	-
	347	C242/347ME	CF Electronic	PRS	0.21	74	1.00	-	-	-

ME - Side and Bottom Exit Terminals

Fits Virtually Every J-box Cover & Fixture Application



The Multi-Exit ballast lead wire connectors accommodate side and bottom lead exit requirements, and the Snap-mount adapter plate adds bottom-exit studs and additional flexibility for replacement of older magnetic ballasts.



Multi-E Kits Contain

- Multi-Exit Ballast
- Snap-mount adapter plate
- Lead wire set
- Wire extraction tool
- Instructions

Multi-E Kit Products:

- C213UNVME000K
- C218UNVME000K
- C2642UNVME000K



Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Nbr	Circuit Type	Input Power (Watts)	Max. Input Current	
High Pressure Sodium	35 W	S76	120	S35120RCCEM500K	Reactor	43	1.15/0.68	
			120	S50120RCCEM500K	Reactor	60	1.50/0.90	
	50 W	S68	120/208/240/277	S50MLTLC3M500K	HX-HPF	64	1.24/0.60/0.52/0.45	
			120	S70120RCCEM000K	Reactor	83	2.10/0.90	
	70 W	S62	480	S7048TLC3M500K	HX-HPF	94	0.34	
			120/208/240/277	S70MLTLC3M500K	HX-HPF	94	1.40/0.83/0.72/0.62	
			120	S100120RCCEM000K	Reactor	117	2.90/1.80	
	100 W	S54	480	S10048TLC3M500K	HX-HPF	135	0.57	
			120/208/240/277	S100MLTLC3M500K	HX-HPF	122	2.20/1.30/1.10/0.95	
			120	S150120RCCEM000K	Reactor	171	4.40/2.20	
	150 W	S55	480 (120V Aux)	S15048TLC3M500K	HX-HPF	189	0.72	
			120/208/240/277	S150MLTLC30500K	HX-HPF	188	3.00/1.65/1.50/1.30	
	200 W	S66	480 (120V Aux)	S20048TAC4M500K	CWA	245	0.56	
			120/208/240/277	S200MLTAC4M500K	CWA	230	2.10/1.20/1.00/0.88	
	250 W	S50	480	S25048TAC4M500K	CWA	285	0.62	
			120/208/240/277/480	S250ML5AC40500K	CWA	300	2.50/1.55/1.25/1.05/0.65	
			120/208/240/277	S250MLTAC4M500K	CWA	300	2.60/1.55/1.30/1.15	
	400 W	S51	480	S40048TAC4M500K	CWA	465	1.10	
				S40048TAC5M500K	CWA	467	1.05	
			120/208/240/277/480	S400ML5AC4M500K	CWA	465	4.00/2.30/2.00/1.70/1.10	
				S400ML5AC5M500K	CWA	468	4.40/2.62/2.21/1.90/1.05	
			120/208/240/277	S400MLTAC4M500K	CWA	440	3.80/2.20/1.80/1.60	
				S400MLTAC5M500K	CWA	470	4.00/2.30/2.00/1.80	
	1000 W	S52	480 (120V Aux)	S100048TAC5M500K	CWA	1100	2.45	
			120/208/240/277/480	S1000ML5AC5M500K	CWA	1048	9.10/5.40/4.60/4.10/2.45	
			120/208/240/277	S1000ML5AW5M500K	CWA	1048	9.10/5.40/4.60/4.10/2.40	
				120/208/240/277	S1000MLTAC5M500K	CWA	1100	9.50/5.50/4.80/4.20



Universal HID Ballast Kits provide everything you need for an easy ballast replacement:

- Adjustable mounting brackets for various mounting configurations
- Pre-wired Capacitor and Ignitor to speed and simplify installation
- Color Coded Leads for easy identification
- Vacuum impregnated for cool and quiet operation



Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Nbr	Circuit Type	Input Power (Watts)	Max. Input Current
Metal Halide	175 W	M57	120/277	M110-2455C-TC	F-Can	205	1.75/0.75
		M57 or M107	480	M17548TAC3M500K	CWA	200	0.51
			120/208/240/277/480	M175ML5AC3M500K	CWA	208/210	1.90/1.10/0.95/0.85/0.50
			120/208/240/277	M175MLTAC3M500K	CWA	205	1.82/1.13/0.93/0.85
	250 W	M58	120/208/240/277	M250MLTAE3M	CWA	294	2.60/1.58/1.30/1.12
			120/277	M110-2465C-TC	F-Can	295	2.50/1.10
			480	M25048TAC4M500K	CWA	284	0.61
			120/208/277/480	M250ML5AC3M500K	CWA	280	2.50/1.50/1.25/1.10/0.65
			120/208/240/277/480	M250ML5AC4M500K	CWA	282	2.42/1.40/1.20/1.00/0.60
			120/208/240/277	M250MLTAC3M500K	CWA	297	2.65/1.58/1.30/1.13
				M250MLTAC4M500K	CWA	290	3.05/1.65/1.55/1.25
			400 W	M59	120/277	M110-2475C-TC	F-Can
	480	M40027TAC4M			CWA	458	3.94/1.69
	480	M400480AC4M			CWA	458	1.00
	120/208/240/277/480	M400ML5AC4M500K			CWA	458	4.00/2.30/2.00/1.70/1.00
	120/208/240/277	M400MLTAC4M500K			CWA	458	3.94/2.20/1.93/1.69
	1000 W	M47	480	M40048TAC4M500K	CWA	458	1.00
			120/480	M100048TAC5M500K	CWA	1060	8.80/2.30
			120/208/240/277/480	M1000ML5AC5M500K	CWA	1060	8.80/5.20/4.40/3.90/2.30
			120/208/240/277	M1000MLTAC5M500K	CWA	1080	8.50/5.00/4.50/3.80
1500 W	M48	480 (120V Aux)	M150048TAC5M500K	CWA	1610	3.50	
		120/208/240/277	M1500MLTAC5M500K	CWA	1610	14.00/8.00/7.00/6.00	
Pulse Start Metal Halide	35 W	M130	120/208/240/277	M35MLTLC3M500K	HX-HPF	50	0.82/0.48/0.42/0.36
	50 W	M110	120/277	M110-236C-TC	F-Can	70	0.64/0.65
			120/208/240/277	M50MLTLC3M500K	HX-HPF	67	1.16/0.67/0.57/0.50
	70 W	M85 (Double Ended)	120/277	M110-277C-TC	F-Can	98	2.00/0.90
			120/208/240/277	M70MLTLC3D500K	HX-HPF	95	1.70/1.04/0.87/0.78
		M98	120/277	M110-506C-TC	F-Can	90	2.00/0.90
			480	M7048TLC3M500K	HX-HPF	95	0.50
	100 W	M90, M92, or M140	120/208/240/277	M70MLTLC3M500K	HX-HPF	95	1.70/1.04/0.87/0.78
			120/277	M110-239C-TC	F-Can	125	2.20/1.00
			480	M10048TLC3M500K	HX-HPF	140	0.62
			120/208/240/277	M100MLTLC30500K	HX-HPF	127	2.60/1.55/1.30/1.15
	150 W	M91 (double ended)	120/208/240/277	M100MLTLC3D500K	HX-HPF	130	2.30/1.30/1.10/0.95
			120/277	M110-539C-TC	F-Can	185	3.70/1.60
			120/208/240/277	M150MLTLC3M500K	HX-HPF	185	3.32/1.93/1.66/1.48
		M102 or M142	120/208/240/277	M150MLTAC3M500K	CWA	188	1.60/1.00/0.80/0.70
			480	M15048TLC3M500K	HX-HPF	180	1.00
			120/277	M110-242C-TC	F-Can	185	3.70/1.60
		M81 (double ended)	120/208/240/277	M150MLTLC3D500K	HX-HPF	185	3.32/1.93/1.66/1.48
			175 W	M137 or M152	277	P175277RC5M500K	Reactor
	480-120	P17548TAC3M500K			CWA	285	0.46
	480-120	P17548TAC4L500K			CWA	198	0.40
	120/208/240/277/480	P175ML5AC3M500K			CWA	285	1.80/1.10/0.90/0.78/0.45
	120/208/240/277	P175MLTAC3M500K			CWA	208	1.86/1.23/0.98/0.87
	120/208/240/277	P175MLTAC3L500K			CWA	198	1.95/1.10/1.00/0.80
	120/208/240/277	P175MLTAC4L500K			CWA	198	1.70/0.95/0.85/0.75
	200 W	M136	277	P200277RC5M500K	Reactor	218	1.80/1.35
			120/208/240/277/480	P200ML5AC3M500K	CWA	233	2.66/1.52/1.31/1.12/0.68
	250 W	M138 or M153	277	P250277RC5M500K	Reactor	278	2.00/1.82
			480-120	P25048TAC4L500K	CWA	275	0.60
			120/208/240/277/480	P250ML5AC4M500K	CWA	285	2.45/1.42/1.22/1.05/0.62
120/208/240/277			P250MLTAC4L500K	CWA	283	2.60/1.50/1.30/1.10	
320 W	M132	277	P320277RC5M500K	Reactor	358	3.70/1.65	
		120/480	P32048TAC4L500K	CWA	364	0.80/1.06	
	M132 or M154	120/208/240/277/480	P320ML5AC4L500K	CWA	363	3.10/1.80/1.55/1.35/0.80	
		120/208/240/277	P320MLTAC4O500K	CWA	365	4.10/2.50/2.00/1.85	



Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Nbr	Circuit Type	Input Power (Watts)	Max. Input Current
Pulse Start Metal Halide	350 W	M131	277	P350277RC500K	Reactor	377	3.80/2.34
			480-120	P35048TAC4O500K	CWA	398	0.85
			120/208/240/277/480	P350ML5AC4O500K	CWA	397	3.35/1.85/1.65/1.40/0.80
			120/208/240/277	P350MLTAC4O500K	CWA	397	3.25/1.80/1.60/1.40
	450 W	M144	480-120	P40048TAC4L500K	CWA	454	1.00
			120/208/240/277/480	P400ML5AC4L500K	CWA	454	3.90/2.25/1.90/1.65/0.95
			120/208/240/277	P400MLTAC4L500K	CWA	454	3.90/2.25/1.95/1.70
	450 W	M144	120/480	P45048TAC4L500K	CWA	511	1.05
			120/208/240/277/480	P450ML5AC4L500K	CWA	508	4.10/2.35/2.05/1.85/1.05
			120/208/240/277	P450MLTAC4L500K	CWA	508	4.35/2.55/2.15/1.90
	750 W	M149	480 (120V Aux)	P75048TAC5M500K	CWA	822	1.80
			120/208/240/277/480	P750ML5AC5M500K	CWA	820	6.95/4.00/3.50/1.75
	750 W	M149	120/208/240/277	P750MLTAC5M500K	CWA	825	7.10/4.10/3.55/3.10
			875W	M166	120/208/240/277	P875MLTAC5M500K	CWA
	1000 W	M141	480 (120V Aux)	P100048TAC5M500K	CWA	1080	2.25
			120/208/240/277/480	P1000ML5AC5M500K	CWA	1080	8.95/5.15/4.45/3.85/2.25
120/208/240/277			P1000MLTAC5M500K	CWA	1070	8.80/5.10/4.50/4.10	

MULTI-5 UNI-PAK

Lamp Type	Lamp Watts	ANSI Code	Input Volts	Catalog Nbr	Circuit Type	Input Power (Watts)	Max. Input Current
High Pressure Sodium	250 W	S50	120/208/240/277/480	S250ML5AC4O555K	CWA	300	2.50/1.55/1.25/1.05/0.65
	500 W	S51	120/208/240/277/480	S400ML5AC4M555K	CWA	465	4.00/2.30/2.00/1.70/1.10
	1000 W	S52	120/208/240/277/480	S1000ML5AC5M555K	CWA	1048	9.10/5.40/4.60/4.10/2.45
Metal Halide	175 W	M57	120/208/240/277/480	M175ML5AC3M555K	CWA	208/210	1.90/1.10/0.95/0.85/0.50
	250 W	M58	120/208/277/480	M250ML5AC3M555K	CWA	280	2.50/1.50/1.25/1.10/0.65
	400 W	M59	120/208/240/277/480	M400ML5AC4M555K	CWA	458	4.00/2.30/2.00/1.70/1.00
	1000 W	M47	120/208/240/277/480	M1000ML5AC5M555K	CWA	1060	8.80/5.20/4.40/3.90/2.30



Multi-5 Uni-Pak is the only HID replacement kit that offers these great benefits:

1. Gives you five taps in one: 120, 208, 240, 277 and 480 volt.
2. Packages the right ballast and lamp to ensure system compatibility — all in an easy-to-carry box.
3. Prewired capacitor (plus ignitor if needed) saves installation time and reduces wiring errors
4. Color-coded leads to reduce the risk of incorrect wiring.
5. Simple installation instruction and troubleshooting tips included.

Order Code	Part #	Lamp Wattage	Lamp Type	Input Voltage	Mounting	Lead Exit
Micro Series						
188514	M2012CK-7EUN	20	M/C156	120	No Feet	Side
188882	M2012CK-7EUN-F	20	M/C156	120	Feet	Side
188883	M2012CK-7EUN-J	20	M/C156	120	Studs	Top
188574	M2212CK-7EUN	22	M/C175	120	No Feet	Side
188884	M2212CK-7EUN-F	22	M/C175	120	Feet	Side
188885	M2212CK-7EUN-J	22	M/C175	120	Studs	Top
188635	M3912CK-7EUN	39	M/C130	120	No Feet	Side
188776	M3912CK-7EUN-F	39	M/C130	120	Feet	Side
188756	M3912CK-7EUN-J	39	M/C130	120	Studs	Top
188757	MTm3912CK-7EUN	39Tm	M/C179	120	No Feet	Side
188777	MTm3912CK-7EUN-F	39Tm	M/C179	120	Feet	Side
188758	MTm3912CK-7EUN-J	39Tm	M/C179	120	Studs	Top
Mini-Slim Series						
188246	M3912CK-6EUN-F	39	M/C130	120	Feet	Side
188164	M7012CK-6EUN-F	70	M/C98, M/C139, M/C143	120	Feet	Side
Mini-Square Series						
188901	M2012-27CK-6EUF	20	M/C156	120-277	Feet	Side
188902	M2012-27CK-6EUJ	20	M/C156	120-277	Studs	Top
1889031	M2012-27CK-6EUJT3	20	M/C156	120/277	Studs	Top
188895	M3912-27CK-6EUF	39	M/C130	120-277	Feet	Side
188896	M3912-27CK-6EUJ	39	M/C130	120-277	Studs	Top
1888971	M3912-27CK-6EUJT3	39	M/C130	120/277	Studs	Top
188293	M3912CK-6EUF	39	M/C130	120	Feet	Side
188939	M7012-27CK-6EUF	70	M/C98, M/C139, M/C143	120-277	Feet	Side
188940	M7012-27CK-6EUJ	70	M/C98, M/C139, M/C143	120-277	Studs	Top
1889411	M7012-27CK-6EUJT3	70	M/C98, M/C139, M/C143	120/277	Studs	Top
Standard Series						
188610	M2012-27CK-5EUF	20	M/C156	120-277	Feet	Side
188611 ₁	M2012-27CK-5EUJT3	20	M/C156	120/277	Studs	Top
188156	M3912-27CK-5EU	39	M/C130	120-277	No Feet	Side
188157	M3912-27CK-5EUF	39	M/C130	120-277	Feet	Side
188301	M3912-27CK-5EUJ	39	M/C130	120-277	Studs	Top
188629 ₁	M3912-27CK-5EUJT3	39	M/C130	120/277	Studs	Top
188630 ₂	M3912-27CK-5EUJA3	39	M/C130	120/277	Studs	Top
188612	M5012-27CK-5EUF	50	M148 or M110	120-277	Feet	Side
188613 ₁	M5012-27CK-5EUJT3	50	M148 or M110	120/277	Studs	Top
188165	M7012-27CK-5EU	70	M/C98, M/C139, M/C143	120-277	No Feet	Side
188166	M7012-27CK-5EUF	70	M/C98, M/C139, M/C143	120-277	Feet	Side
188167	M7012-27CK-5EUJ	70	M/C98, M/C139, M/C143	120-277	Studs	Top
188631 ₁	M7012-27CK-5EUJT3	70	M/C98, M/C139, M/C143	120/277	Studs	Top
188632 ₂	M7012-27CK-5EUJA3	70	M/C98, M/C139, M/C143	120/277	Studs	Top
188633 ₁	M10012-27CK-5EUJT3	100	M/C90, M/C140, C191	120/277	Studs	Top
188168	M10012-27CK-5EU	100	M/C90, M/C140, C191	120-277	No Feet	Side
188169	M10012-27CK-5EUF	100	M/C90, M/C140, C191	120-277	Feet	Side
188302	M10012-27CK-5EUJ	100	M/C90, M/C140, C191	120-277	Studs	Top
188634 ₂	M10012-27CK-5EUJA3	100	M/C90, M/C140, C191	120/277	Studs	Top
188638.05 ₃	M15012-27CK-5EUF	150	M/C102 and M/C142	120-277	Feet	Side
188639.05 ₃	M15012-27CK-5EUJ	150	M/C102 and M/C142	120-277	Studs	Top
188989.05 _{1,3}	M15012-27CK-5EUJT3	150	M/C102 and M/C142	120-277	Studs	Top

Footnotes:

- 1 - "JT3" models have 120V power source for operating the heater on self-heating thermal protectors allowing dual-rated input voltage fixtures.
- 2 - "JA3" models have same 120V power source as JT3 models , but also have an integrated auxiliary light control which drives a quartz restrike back-up lamp.
- 3 - Exceeds EISA 2007 requirements with 90% efficiency.



- Optimum Lamp Performance
- Rugged, compact and lightweight design
- Enhanced color and CRI uniformity
- Reduced lamp dropouts caused by voltage dips
- Quiet Operation

UNIVERSAL SIGN

No. of Lamps	Total Lamp Footage (T12HO Style Lamps)		Catalog Nbr
	Minimum	Maximum	
1 - 2	4'	12'	USB-0412-12
1 - 4	8'	16'	USB-0816-14
1 - 4	10'	24'	USB-1024-14
2 - 4	16'	32'	USB-1632-24
4 - 6	20	36'	USB-2036-46
4 - 6	20	48'	USB-2048-46

MAX-3 SERIES UNIVERSAL SIGN

No. of Lamps	Total Lamp Footage (T12HO Style Lamps)		Catalog Nbr
	Minimum	Maximum	
1 - 6	2'	18'	USB-0218-16
1 - 6	12'	32'	USB-1232-16
1 - 6	10'	48'	USB-1048-16

ELECTRONIC SIGN

No. of Lamps	Total Lamp Footage (T12HO & T8HO Style Lamps)		Catalog Nbr
	Minimum	Maximum	
1 - 2	2'	16'	ESB216-12
1 - 4	4'	32'	ESB432-14
4 - 6	8'	48'	ESB848-46
1 - 4	10'	40'	ESB1040-14



MAX-3 Sign Ballasts for Maximum Flexibility

- 3 Ballasts cover all sign ballast applications
- 1 to 6-Lamp operation with each ballast
- From 2' to 48' Lamp applications

Electronic Sign Ballasts

- Instant start wiring minimizes connection requirements
- Universal input voltage
- Significant energy savings compared to standard sign ballasts



	LAMP TYPE	QTY	Analog Dimming	Light Level Switching	DALI Digital Dimming Ballasts	Analog Dimming w/ Parallel Lamp	Light Level Switching w/ Parallel Lamp	
T8	F17T8	1	B132PUNVSV3-A	B232PUS50-A		B232PUSV3PLA (120-277V)	B232PUS50PLHA (120-277V)	
		2	B232PUNVSV3-A					
	F25T8	1	B132PUNVSV3-A	B232PUS50-A			B232P3SV3PLA (347V)	B232P3S50PLHA (347V)
		2	B232PUNVSV3-A					
	F32T8	1	B132PUNVSV3-A	B232PUS50-A	B132PUNVDV1		B232P3SV3PLA (347V)	B232PUS50PLA (120-277V)
		2	B232PUNVSV3-A		B232PUNVDV1			
3		B332SR120V5 B332SR277V5	B332SR120S30 B332SR277S30					
4		B432SR277V5	B214PU115S50A					
T5 & T5HO	F14T5	1	B114PUNVSV3-D	B214PU115S50A	B114PUNVDV1	B228PUSV3PLA (120-277V)	B232PUS50PLA (120-277V)	
		2	B214PUNVSV3-D	B228PU95S50D & B214PU115S50A	B214PUNVDV1			
	F21T5	1	B128PUNVSV3-D	B214PU115S50A	B128PUNVDV1		B228P3SV3PLA (347V)	B232P3S50PLA (347V)
		2	B228PUNVSV3-D	B228PU95S50D	B228PUNVDV1			
	F28T5	1	B128PUNVSV3-D		B128PUNVDV1			
		2	B228PUNVSV3-D	B228PU95S50D & B228PU115S50D	B228PUNVDV1			
	F35T5	1	B135PUNVSV3-D					
		2		B228PU115S50D				
	F54T5HO	1			B154PUNVDV1		B254PUSV3PLD	B254PUSV3PLD
		2			B254PUNVDV1			
CFL	CFQ/TR13W	1	C213UNVSV3ME					
		2	C213UNVSV3ME					
	CFQ/TR18W	1	C218UNVSV3ME		C118PUNVDV3			
		2	C218UNVSV3ME		C218PUNVDV3			
	CFQ/TR26W	1	C226UNVSV3ME		C126PUNVDV3			
		2	C226UNVSV3ME		C226PUNVDV3			
	CFTR32W	1	C226UNVSV3ME		C132PUNVDV3			
		2			C232PUNVDV3			
CFM42W	1	C226UNVSV3ME		C142PUNVDV3				
	2			C242PUNVDV3				
T5	FT40W/2G11	1			C140PUNVDV3			
		2			C240PUNVDV3			

- SuperDim Analog dimming ballasts operate with numerous industry standard compatible 0 to 10-volt controls. Most SuperDim ballasts feature universal input voltage and a dimming range down to 1% for T5 lamps and 3%.
- BallastAR light level switching ballasts operate with standard wall switches or relays to provide switching between 100% and 50% light levels or 100%/ 60%/ 30% light levels while keeping all lamps operating for full fixture illumination.
- DALI-Pro digital dimming ballasts are designed for use with industry standard DALI controls. DALI-Pro ballasts feature universal input voltage and dimming range down to 1% for linear lamps and 3% for CF lamps.
- VariPro ballasts combine fast starting and parallel lamp operation on a 0-10V Analog dimming ballast platform. Universal voltage (120-277V) and 347V models are available.
- LevelPro step-dimming ballasts provide fast starting & parallel lamp operation. Several models are available, providing various choices for input voltage and ballast factor, and all support a large selection of lamp applications.

- For more information on all of the dimming ballasts and controls, visit www.unvlt.com

GLOSSARY

AccuStart T5	Programmed rapid start (PRS) electronic ballast, <10% THD, T5 lamps
Basic-12	Electronic ballast for T12 lamps, for additional suffix, refer to glossary
CF Electronic	Compact fluorescent electronic ballast, THD<10, E.O.L.I. Auto-reset shutdown Circuit
CF Magnetic	Compact fluorescent magnetic ballast
ES Magnetic	Energy saving magnetic fluorescent ballast
HP Electronic	High Performance Linear electronic ballast, <10% THD
High Light	Linear electronic ballast, high light output, <20% THD
Low Power	Linear electronic ballast, reduced light output, <20% THD
Low PF Magnetic	Magnetic fluorescent ballast, low power factor
Magnetic (0° F)	Magnetic fluorescent ballast, 0° F minimum starting temperature
MR (Basic-12)	Electronic ballast designed as a Magnetic Replacement
Std Electronic	Standard Linear electronic ballast, < 20% THD
Std Magnetic	Standard Magnetic fluorescent ballast
ULTim8 T8	High efficiency electronic ballast, T8 lamp applications

WARRANTY

Universal Lighting Technologies, 26 Century Blvd., Suite 500, Nashville, TN 37214-4602, 1-800-BALLAST, (hereinafter called "Universal") warrants to the purchaser that its lamp ballasts and neon transformers, (hereinafter called "Lighting Products"), will be free from defects in material and workmanship for the specified warranty periods beginning from the date of manufacture.

TRIAD Electronic Fluorescent Ballasts	up to 60 Months*
Universal, Energy Saving Electromagnetic Fluorescent Ballasts	36 Months
AddressPro, SuperDim, and DaliPro Ballasts	36 Months
Basic-12 and HomeStar Electronic Fluorescent Ballasts	up to 36 Months*
Standard Universal Electromagnetic, Fluorescent & HID Ballasts	24 Months
Universal Sign Ballasts	24 Months
MAX-3 Series Sign Ballasts	36 Months

* Consult individual product information sheets at www.unvlt.com for specific warranty information.

If it appears within the specified warranty period that any Universal Lighting Product does not meet the warranty specified above, Universal, at its option, will either repair or replace the Lighting Product at Universal's expense. Universal extends this limited warranty to the original or first end-user purchaser only. This warranty is conditional based upon proper storage, installation, use and maintenance.

This warranty is not applicable to, and Universal makes no warranty whatsoever with respect to, any Lighting Product not installed and operated in accordance with the National Electric Code (NEC), the Standards for Safety of Underwriters Laboratories, Inc. (UL), Standards for the American National Standards Institute (ANSI) or, in Canada, the Canadian Standards Association (CSA). Nor is this warranty applicable to any Lighting Product which has not been installed and operated in accordance with Universal's specifications and connection diagrams or Lighting Products which have been subjected to abnormal operating conditions. This includes, but is not

limited to, excessive temperatures as specified in Universal's published literature. The conditions for any tests (to be) performed on Lighting Products which are claimed to have not performed in accordance with the terms of the warranty shall be mutually agreed upon in writing and Universal may be represented at any such tests.

NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY BEYOND THE AFOREMENTIONED WARRANTY PERIOD. The foregoing warranty is exclusive of all other statutory, written or oral warranties and no other warranties of any kind, statutory or otherwise, are given or herein expressed. Warranty claims are to be made in accordance with Universal's published Warranty Service Program which is available upon request. This warranty sets forth Universal's obligations and responsibilities regarding its Lighting Products and is the exclusive remedy available to the claimant.

Limitations of Liability, under no circumstances, whether as a result of breach of contract, breach of warranty, tort, strict liability or otherwise, will Universal be liable for consequential, incidental, special or exemplary damages, including, but not limited to, loss of profits, loss of use or damage to any property or equipment, cost of capital, cost of substitute product, facilities or services, down time costs or claims of claimant's customers. Universal's liability for all claims of any kind or for any loss or damages arising out of, resulting from or concerning any aspect of this warranty or from the Lighting Products or services furnished hereunder, shall not exceed the price of the specific Lighting Product which gives right to the claim, except in accordance with Universal's Technical Engineering Service Program.

State Law Right, some states do not allow the exclusion or limitation of consequential or incidental damages or the duration of time for an implied warranty. Therefore, the limitations or exclusions of consequential or incidental damage and implied warranties may not apply to certain claimants. This warranty provides the claimant with specific legal rights and claimants may have other rights that vary from state to state.

Effective: 4/9/2008

	Lamp Part Numbers	Lamp Watts	Lamp Life** (Hours)	Initial Lumens	Mean Lumens	CCT (°K)	CRI	Length	Order Code Suffix	UPC Code (763386-)	Carton Qty
Linear T8 Lamps											
F32T8/800	F32T8/835	32	24000	2950	2800	3500	84	48	A00C	25736	30
	F32T8/841	32	24000	2950	2800	4100	84	48	A00C	25737	30
	F32T8/850	32	24000	2850	2710	5000	82	48	A00C	25738	30
F32T8HL High Lumen	F32T8/835HL	32	24000	3100	2915	3500	84	48	A00C	25898	30
	F32T8/841HL	32	24000	3100	2915	4100	84	48	A00C	25899	30
	F32T8/850HL	32	24000	3000	2820	5000	82	48	A00C	25900	30
F28T8	F28T8/835	28	24000	2725	2590	3500	84	48	A00C	25877	30
	F28T8/841	28	24000	2725	2590	4100	84	48	A00C	25878	30
	F28T8/850	28	24000	2600	2470	5000	82	48	A00C	25879	30
F32T8/25W (25W ES)	F32T8/835/25W	25	24000	2450	2300	3500	84	48	A00C	56273	30
	F32T8/841/25W	25	24000	2450	2300	4100	84	48	A00C	56274	30
	F32T8/850/25W	25	24000	2400	2260	5000	82	48	A00C	56275	30
F25T8 3'	F25T8/835	25	24000	2225	2050	3500	84	36	A00C	25874	30
	F25T8/841	25	24000	2225	2050	4100	84	36	A00C	25875	30
F17T8 2'	F17T8/835	17	24000	1325	1200	3500	84	24	A00C	25873	30
	F17T8/841	17	24000	1325	1200	4100	84	24	A00C	25871	30
	F17T8/850	17	24000	1325	1200	5000	82	24	A00C	25872	30
U-Bend T8 Lamps											
F32T8 U-Bend 6" Leg	FB32T8/835/6	32	24000	2900	2755	3500	84	22.5	A00C	25865	10
	FB32T8/841/6	32	24000	2900	2755	4100	84	22.5	A00C	25866	10
T5HO Lamps*											
F54T5HO	F54T5HO/835	54	30,000	5000	4600	3500	85	48	B00C	27422	40
	F54T5HO/841	54	30,000	5000	4600	4100	85	48	B00C	24987	40
	F54T5HO/850	54	30,000	5000	4600	5000	85	48	B00C	24991	40
F49T5HO	F49T5HO/841	49	30,000	5000	4600	4100	84	48	B00C	56276	40
	F49T5HO/850	49	30,000	4850	4510	5000	84	48	B00C	56277	40

* T5HO data is for 35°C Operation

** Lamp life rating based on 3 hours per start (T8 - Instant Start, T5HO - Programmed Start)



- Combine Universal's ballasts and lamps for maximum energy savings.
- System Security Lamp & Ballast warranty provides additional coverage from a single source.



IT'S EASY TO REACH US...



Universal Lighting Technologies, Inc.
26 Century Blvd., Suite 500
Nashville, TN 37214-3683



General Info: (615) 316-5100
For Technical Engineering Services (TES), application support and warranty information, call 1-800-BALLAST



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